TOP SECRET

REQUIREMENT ON SOVIET AIR DEFENSE SYSTEM UTILIZING CUBAN COLLECTION POTENTIAL

Many of the gaps in our knowledge of the general effectiveness of the Sino-Soviet Bloc air defense systems could be uniquely answered by successful multiple collection efforts against the Soviet-furnished and probably Soviet-operated Cuban air defense system. This air defense system is estimated to be nearing complete operational status and probably has at least limited point defense capability today. Confirmation of this estimate has not been furnished by those collection assets that have thus far been used against Cuba. This operational status confirmation is urgently needed together with positive substantive information that will identify the defensive weapon system version(s) being installed in Cuba, and more exact performance capability figures on the missile and aircraft system components. The basic components observed in Cuba are the same ones that form the mainstay of the air defense system currently deployed in the USSR.

The gaps in knowledge by the U. S. of the Soviet Bloc air defense system can be divided into two general areas: (1) lack of knowledge concerning components and weapons effectiveness, and (2) lack of knowledge concerning the air defense system as a whole. Only the first is considered here since the Cuban system does not lend itself to exploitation of the capability as a whole.

HANDLE VIA TALENT

SYSTEM ONLY

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The landbased systems are the SA-2 missile system, including electronics, the missile itself and support facilities; AAA batteries; the early warning and GCI network and associated communications. At present the SA-1 and SA-3 systems do not appear to be involved; if they ever do become a factor, they should be considered also.

The airborne systems include fighter aircraft and the weapons and communications involved.
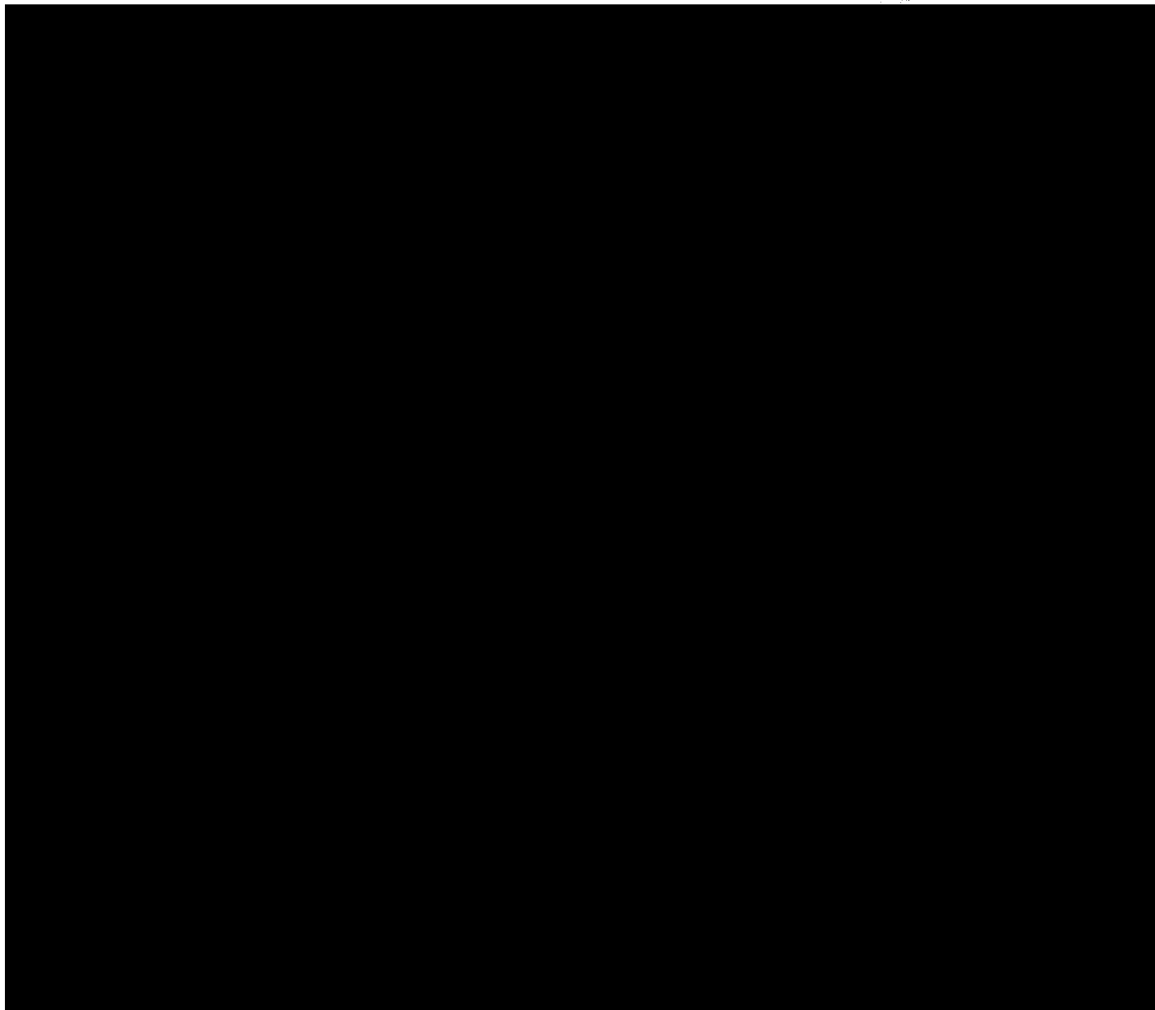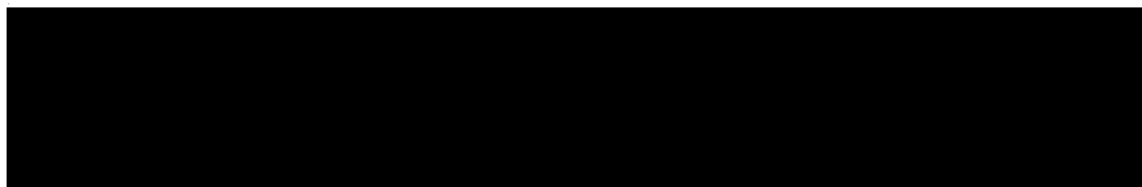
25X1B

B. Since AAA efforts are effective only at lower altitudes, they are not 25X1B of as great importance as other defensive systems. Also, there are ████ gaps in our knowledge of the AAA situation. Information needed on the AAA activity is as follows: 25X1B

TCS-13229-62
Page 4

C. The airborne components of the Soviet air defense system consist

of fighter planes and their weapons. The MIG-15/17's are not considered since

there are no details of their operations which need to be solved by a Cuban probe.

The MIG-19 could possibly be a threat, according to the accompanying estimates,

especially if carrying a missile. The MIG-21 very likely is a definite threat to

most airborne efforts. The items of information which are needed regarding the

fighters and their armament are as follows:

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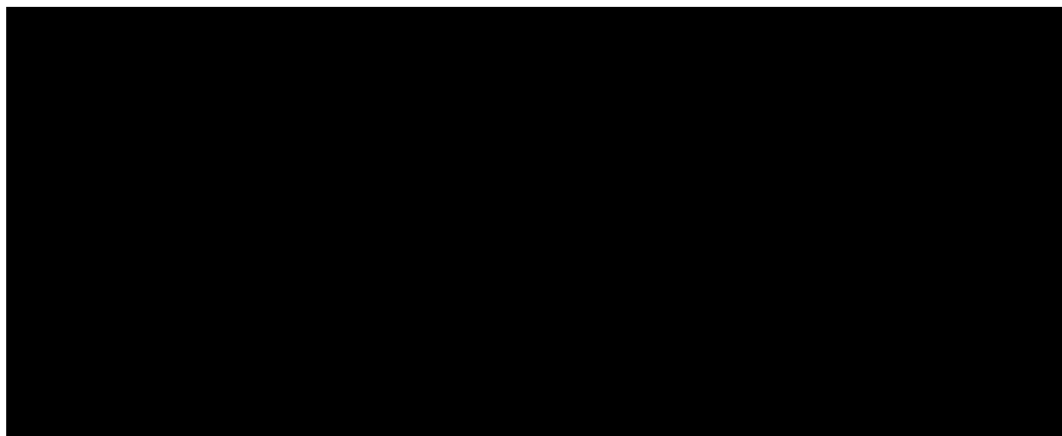
D. The need for coverage of the early warning and GCI networks can

be and is adequately covered by various peripheral efforts. No overflight

mission should be devoted solely to intercept of this element of the air defense

system.

E. All aspects of communications can be better covered by peripheral

flights and ground coverage.

ESTIMATED MAXIMUM OPERATING LIMITS

	ALTITUDE (FEET)	RADAR
AAA		
57 mm	6,000	-------
85 mm	27,500	SON-4, SON-9
100 mm	39,000	SON-9 & VT Fuses available

Fighters	Combat Radius (nm)	Altitude Combat Ceiling w/o external fuel	weapons	
MIG-15	330	51,000	2 x 23 mm 1 x 37 mm	------
MIG-17	300	54,000	3 x 23 mm could carry missiles but not observed	SCAN ODD SCAN FIX
MIG-19	420	56,000	2 x AA-2 IR missiles	SCAN FIX SCAN FIX
MIG-21	290	50,700 Possible zoom to 70,000	2 x AA-2 IR missiled or possible AA-1 or AA-3	HIGH FIX SPIN SCAN

SAM	Slant Range	Altitude	
SA-2	About 25 nm	80,000 feet with with decreasing effectiveness to about 100,000 feet	S or C-Band track-while-scan